AF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPELLANT:	Oliver Schreck	CONFIRMATION NO. 3794
SERIAL NO.:	10/072,039	GROUP ART UNIT: 3737
FILED:	February 5, 2002	EXAMINER: Baisakhi Roy
TITLE:	"METHOD AND APPARATUS FOR FUNCTIONAL MAGNETIC RESONANCE IMAGING"	

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APPELLANT'S APPEAL BRIEF

S I R:

In accordance with the provisions of 37 C.F.R. §41.66 and §41.67, Appellant herewith submits his brief in support of the appeal of the above-referenced application.

REAL PARTY IN INTEREST:

The real party in interest is the assignee of the application, Siemens Aktiengesellschaft, a German corporation.

RELATED APPEALS AND INTERFERENCES:

There are no related appeals and no related interferences.

STATUS OF CLAIMS:

Claims 1-15 are the subject of the present appeal and constitute all pending claims of the application. No claim was added or cancelled during prosecution before the Examiner.

STATUS OF AMENDMENTS:

No amendment was filed following the Office Action dated September 22, 2005, wherein claims 1-15 were finally rejected.

SUMMARY OF CLAIMED SUBJECT MATTER:

Functional magnetic resonance imaging (fMRI) offers the possibility of being able to examine and observe body or organ functions over a longer time span in order to obtain information about possible pathologies of the examination region. (p.1, l.12-14) A number of image sequences are successively registered in alternation within the framework of these examinations, with a designational stimulation of the examination subject either being emitted or not emitted within the respective sequence. (p.1, l.14-17) As a result of the designational stimulation, stimulation-dependent differences appear in the registered images, these differences being processed within the framework of the evaluation that ensues after the registration of a respective image. (p.1, l.17-20) One example of an examination method for functional imaging is BOLD (blood oxygen level dependent) measurement using a magnetic resonance apparatus, whereby activity images of the brain of the patient are registered. (p.1, l.20-23) For some of the image acquisitions, the brain of the patient is thereby stimulated, for example as a result of finger movement, acousto-optical signals, electrical pulses, etc., whereas no stimulation ensues during the others of the measurements. (p.1, l.23-26) The different measurements that are obtained in the framework of the evaluation are correlated with respect to an evaluation correlation value. A measure for the stimulation of defined brain areas of the patient are obtained from this evaluation, with the stimulated brain areas appearing in the evaluation image as clearly brighter regions. (p.1, l.26- p.2, l.4)

In known methods, the evaluation ensues directly after a measurement or registration of an image. This evaluation is based on the relevant information known

at this moment as to whether the respective image was registered with or without stimulation, possibly also with information relating to the stimulation as well as the respective evaluation correlation value. Problems arise, however, when a repeated evaluation is to ensue at a later point in time. It is not possible to exactly allocate the image-related, relevant information such as a stimulation phase underlying the registration as well as the information about the stimulation itself and the evaluation correlation value to the respective image. (p.2, l.5-13)

The claims on appeal concern an fMRI method and apparatus wherein the above problem is addressed by storing, for every image, an information value that indicates whether the image was registered during a phase with or without stimulation, as well as at least one image-related stimulation value, and at least one image-related evaluation correlation value. All of these stored values are independent of the picture elements of the image, i.e. they are not information that a diagnostician "sees" (or discerns) by simply looking at the image itself.

The application figure schematically shows the executive sequence of the inventive method i.e., the operation of an inventive magnetic resonance apparatus. (p.4, l. 20-21) An examination subject 1 is shown that, for example, is located in a magnetic resonance apparatus 2. (p.4, l. 21-22) For example, the activity of the brain given an optical stimulation is to be investigated here. (p.4, l. 23-24) For this purpose, a stimulation source 3 in the form of a light source 4 is provided, the operation thereof being triggered via an external trigger device 5. The light source 4 is turned on and off in alternation according to the curve T. The on duration Δt_m as well as the off duration Δt_o respectively amount, for example, to 10 s. (p.4, l.24 - p.5,l.3)

A number of images within the different stimulation phases are now registered with the magnetic resonance apparatus 2. (p.5., l.4-5) In the illustrated example, respectively five images 7 are registered per phase, i.e. with a given stimulation as well as without stimulation. (p.5., l.5-7) The image exposure is triggered corresponding to the time triggering of the stimulation source. (p.5., l.7-8) This makes it possible to allocate an information value with respect to the respective stimulation phase within which the image 7 was registered to each image 7. (p.5., l.8-10) In addition, the information value can be used to indicate whether the respectively registered image is to be ignored or not within the framework of the evaluation. (p.5., l.10-12) In the illustrated example, the information value sequence reads "IAAAI-IBBBI-IAAAI-...", whereby A = actively stimulated phase, B = non-stimulated phase, I = ignore image. Of the five images registered per phase, thus, the first and last are not taken into consideration in the evaluation; the three remaining images are evaluated. (p.5., l.12-15)

As stated, the exposure of the images 7 is triggered dependent on the stimulation. In the illustrated exemplary embodiment, five images are registered per stimulation phase, at the times t_{m1}, t_{m2},...,t_{m5}, t_{o1}, t_{o2},....,t_{o5}, t_{m6}, t_{m7},... (t_m = with stimulation; t_o = without stimulation). (p5., l.16-19) A first evaluation, further, ensues after the registration of each individual image . In the framework thereof, each individual image and, within this individual image, each individual picture element is correlated with reference to a correlation curve K. (p5., l.19-22) The correlation curve K is determined by the examining physician before the measurement. In the illustrated example, the correlation is implemented on the basis of a sinusoidal correlation curve K since the brain does not supply a discontinuous reply to an

external stimulus but rises slowly up to a maximum of approximately 2p sec and then likewise requires a certain time upon shut-off until the signal has decayed. (p.5, l.22 - p.6, l.3) Within the framework of the evaluation, a corresponding, time-related evaluation correlation value k_{m1}, k_{m2},..., k_{m5}, k_{01}, k_{o2},..., k_{o5}, k_{m6},... is selected for each exposure time t_{m1}, t_{m2},...,t_{o1}, t_{o2},... regardless of the phase. (p.6, l.5-7) The evaluation then supplies a value that represents a criterion for the difference that the respective picture element signal exhibits with reference to the value of the correlation curve. A statistical evaluation thus ensues with reference to the images registered within the measurement (for example, 100 images overall can be registered within a measurement; of course, more images can also be registered), an overall image being present at the end of the statistical evaluation that shows the active zone of the brain. (p.6, l.7-11) The active zones of the brain are derived statistically by taking the differences inherent in the picture elements into consideration over the total number of registered images. The stimulated brain zones are revealed within the final image on the basis of clearly brighter areas. (p.6, l.11-14)

Finally, each individual image 7 and a family of information related thereto are stored in a memory area 6 of the magnetic resonance apparatus 2, these enabling a later evaluation of the image series since the operating, stimulation and evaluation parameters undertaken by the examining physician during the measurement and the initial evaluation are known per individual image. (p.6, l.15-19) In the illustrated example, the exposure point in time t_{m1}, the correlation value k_{m1} related to the exposure point in time, the phase information value I as well as the stimulation value T_w (for example, the brightness of the light source 4) are stored for the first image 7. The exposure point in time t_{m2}, the correlation value k_{m2}, the phase information value

A and the stimulation value T_w are stored to the second registered image, etc. (p.6, l.19-24)

ISSUES TO BE REVIEWED ON APPEAL:

The following issues are presented in this appeal.

Whether the subject matter of claims 1-9 and 12-15 would have been obvious to a person of ordinary skill in the field of functional magnetic resonance imaging under the provisions of 35 U.S.C. §103(a) based on the teachings of United States Patent No. 5,603,322 (Jesmanowicz et al.) in view of the teachings of United States Patent No. 5,584,293 (Darrow et al.);

Whether the subject matter of claim 11 would have been obvious to a person of ordinary skill in the field of functional magnetic resonance imaging under the provisions of 35 U.S.C. §103(a), based on the teachings of Jesmanowicz et al. in view of Darrow et al., further in view of the teachings of United States Patent No. 6,018,675 (Apkarian et al.); and

Whether the subject matter of claim 10 would have been obvious to a person of ordinary skill in the field of functional magnetic resonance imaging under the provisions of 35 U.S.C. §103(a), based on the teachings of Jesmanowicz et al. in view of Darrow et al., further in view of the teachings of United States Patent No. 5,771,893 (Kassai et al.).

ARGUMENT:

Rejection of Claims 1-9 and 12-15 Under 35 U.S.C. §103(a) Based on Jesmanowicz et al. and Darrow et al.

Appellant submits the Jesmanowicz et al. reference discloses a technique for displaying images of the brain that have been obtained in a sequence, during which a stimulation was present when some of the images in the sequence were acquired,

ARGUMENT:

Rejection of Claims 1-9 and 12-15 Under 35 U.S.C. §103(a) Based on Jesmanowicz et al. and Darrow et al.

Appellant submits the Jesmanowicz et al. reference discloses a technique for displaying images of the brain that have been obtained in a sequence, during which a stimulation was present when some of the images in the sequence were acquired, but the stimulation was removed when other images in the sequence were acquired. As summarized at column 2, lines 41 through 60 of the Jesmanowicz et al. reference, an anatomical image of the subject's brain is displayed at a display screen together with a cursor and by moving the cursor over the anatomical image to a selected point, the time course of the underlying MRI data can be displayed as a graph. Because the underlying data points change in intensity, depending on whether the stimulation was present or not present, a time curve of the application of the stimulation can be derived, and displayed as well.

Another way of processing and displaying the data sets is disclosed in the Jesmanowicz et al. reference, which is summarized at column 2, lines 61 through 67. The data can be processed to obtain a functional image of the brain, and from the displayed image, a neurologist can select two image data sets respectively acquired when the stimulation was present and when the stimulation was not present.

Therefore, in the Jesmanowicz et al. reference, all of the selectively displayed information is derived from the actual image data, i.e. this information is embodied in the image data. There is no information that is separate from the image data that is stored together with the image data, as set forth in the claims of the present application as originally filed.

Each of independent claims 1 and 6 explicitly states that information indicating whether the image was registered with or without stimulation of the subject is stored "together" with each image in the plurality of images. By stating that the images are stored "together" with this information, it is clear that this information must be something separate from or different from the image itself. There is no teaching in the Jesmanowicz et al. reference that the stimulation time curve, for example, even if created and than temporarily displayed on the screen, is stored "together" with the image data. In fact, there is no need in the Jesmanowicz et al. reference to store that time curve "together" with the image data, because the time curve has been derived from the image data and is therefore already embodied in the image data, and if it is ever needed again for display purposes, it can simply be again derived from the underlying image data.

Moreover, each of independent claims 1 and 6 uses the word "together" to refer not only to the aforementioned information indicating whether the image was registered with or without stimulation of the subject, but also to refer to "at least one image-related stimulation value" and "at least one image-related evaluation correlation value." This clearly indicates that each of these information types is something separate from and different from the actual image, otherwise it would not be possible to store that information "together" with the image.

Moreover, interpretation of claims 1 and 6 as encompassing information that is derived from the image data, as in the Jesmanowicz et al. reference, is precluded by the language in each of independent claims stating that the displayed image is comprised of picture elements (which is intended to be a generic term encompassing

both pixels and voxels), and that the aforementioned information is, in each case, independent of the picture elements.

The Jesmanowicz et al. reference does not disclose or suggest storing any type of information "together with" the image data, and clearly does not disclose or suggest storing information that is independent of the voxels that form the stored image.

In the Final Rejection, the Examiner acknowledged that the Jesmanowicz et al. does not explicitly teach the storing of image data with information different from the image, but the Examiner relied on the Darrow et al. as disclosing a magnetic resonance imaging method that the Examiner characterized as storing image parameters with the image data that are different from the image data. The Examiner relied on column 2, lines 12-25 and 33-47, and column 4, lines 1-35, and Figure 2 of the Darrow et al. reference for this teaching. The Examiner stated it would have been obvious to a person of ordinary skill to use this teaching of Darrow et al. to modify the teaching of Jesmanowicz et al. for the purpose of providing all relevant information together with the image data, and therefore enabling a repeated evaluation at a later time.

Appellant submits that the Darrow et al. reference discloses a magnetic resonance system wherein parameters are initially selected for the purpose of an image acquisition procedure, the image parameters being related to the spatial detail, the orientation, and the field of view for the desired image. This is described in the Darrow et al. reference at column 1, lines 65-67. Image icons that are stored together with these aforementioned image parameters, that are to be used for acquisition of the magnetic resonance image, are created for the acquired magnetic

resonance images. As is clear from column 2, lines 12-25 of the Darrow et al. reference, cited by the Examiner, given selection of an image icon by a user, these image acquisition parameters are forwarded to the pulse sequence controller, so that the image plane of an original image can be re-used in a subsequent image acquisition.

The Darrow et al. reference, therefore, does not provide any teaching, guidance or motivation with regard to patient stimulation, nor information indicating whether stimulation occurred or did not occur, nor the other types of information set forth in the claims of the present application.

The most that a person of ordinary skill could learn from the Darrow et al. reference would be to generally store relevant information relating to image acquisition parameters together with the image data, the image acquisition parameters being indicated with an icon. These image parameters, however, concern only information that is needed for the actual magnetic resonance data acquisition, but do not relate to extraneous items, such as whether stimulation did or did not occur while an image acquisition was occurring. It is of course true that, in the general context, the overall examination encompasses such stimulations, however, the stimulations themselves are not relevant, nor need be set, for the actual acquisition of image data, which is all that is of concern in the Darrow et al. reference. The presence or absence of a stimulation ensues completely independently of the image acquisition parameters of the type described in Darrow et al. Since the presence or absence of stimulation is completely independent of the image acquisition parameters, a person of ordinary skill in functional magnetic resonance imaging technology, who has not had the benefit of first reading the

present disclosure, would have no reason to extend the icon-designation teachings of Darrow et al. to something that is completely independent of the image acquisition parameters themselves.

In summary, Appellant submits that the Darrow et al. reference teaches that icons are used that relate to the acquisition of the magnetic resonance image data, and thus are supplied to the image controller, but these icons have nothing to do with the actual stimulation of the subject.

These arguments concerning the Darrow et al. reference were discussed with the Examiner in a telephone interview following the final rejection. In response to these arguments, the Examiner stated that the icons disclosed in the Darrow et al. reference are for the purpose of image planning and, in the case of fMRI, the image planning would include a sequence or timing pattern of the stimulation that will be applied, as one of the pre-planning parameters. The Examiner agreed that this information would not be supplied to the controller for acquiring the actual MR image data, but the Examiner stated it would have been obvious to a person of ordinary skill, when pre-planning an fMRI exam, to include an icon that designates the stimulation sequence, and the stored sequence represented by the icon would then be stored with the image data and would allow a correlation with the time of acquisition of fMRI image so as to indicate whether the image was or was not acquired with a stimulation being present.

Appellant respectfully submits that these conclusions of the Examiner are simply speculation as to how the icon that is admittedly disclosed in the Darrow et al. might be used, and as such amount to nothing more than a "obvious to try" conclusion, which clearly does not rise to the level of evidence necessary to

substantiate a rejection under 35 U.S.C. §103. There clearly is no explicit teaching in the Darrow et al. reference to make such a use of the icon disclosed therein, nor is there any teaching, guidance or motivation disclosed in that reference, or in the Jesmanowicz et al. reference, to make such a use of the icon. In fact, the Jesmanowicz et al. reference teaches away from using the Darrow et al. icon for that purpose because, as argued above and as acknowledged by the Examiner, there is no teaching in the Jesmanowicz et al. reference to store any information other than the actual image information itself, or information directly derived therefrom. A person of ordinary skill in the field of functional magnetic resonance imaging reading the Jesmanowicz et al. reference would be taught that storing the type and amount of information that is disclosed in the Jesmanowicz et al. reference is sufficient to provide the diagnostician with whatever is necessary to evaluate the fMRI images. Simply because the Darrow et al. reference teaches the convenience of using a pre-planning icon in the context of fMRI does not provide the evidentiary substantiation to jump to the conclusion that storage of that icon together with the acquired image information would be of benefit.

The Federal Circuit stated in *In re Lee* 227 F.3d 1338, 61 U.S.P.Q. 2d 1430 (Fed. Cir. 2002):

> "The factual inquiry whether to combine references must be thorough and searching. ...It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with."

Similarly, quoting *C.R. Bard, Inc. v. M3 Systems, Inc.,* 157 F.3d 1340, 1352, 48 U.S.P.Q. 2d 1225, 1232 (Fed. Cir. 1998), the Federal Circuit in *Brown &*

Williamson Tobacco Court v. Philip Morris, Inc., 229 F.3d 1120, 1124-1125, 56 U.S.P.Q. 2d 1456, 1459 (Fed. Cir. 2000) stated:

> [A] showing of a suggestion, teaching or motivation to combine the prior art references is an 'essential component of an obviousness holding'.

In *In re Dembiczak,* 175 F.3d 994,999, 50 U.S.P.Q. 2d 1614, 1617 (Fed. Cir. 1999) the Federal Circuit stated:

> Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.

Consistently, in *In re Rouffet,* 149 F.3d 1350, 1359, 47 U.S.P.Q. 2d 1453, 1459 (Fed. Cir. 1998), the Federal Circuit stated:

> [E]ven when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill in the art, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.

In *Winner International Royalty Corp. v. Wang,* 200 F.3d 1340, 1348-1349, 53 U.S.P.Q. 2d 1580, 1586 (Fed. Cir. 2000), the Federal Circuit stated:

> Although a reference need not expressly teach that the disclosure contained therein should be combined with another, ... the showing of combinability, in whatever form, must nevertheless be clear and particular.

Lastly, in *Crown Operations International, Ltd. v. Solutia, Inc.,* 289 F.3d 1367, 1376, 62 U.S.P.Q. 2d 1917 (Fed. Cir. 2002), the Federal Circuit stated:

> There must be a teaching or suggestion within the prior art, within the nature of the problem to be solved, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor.

For the above reasons, Appellant submits that the Examiner has not provided the rigorous level of evidentiary substantiation required by the United States Court of Appeals for the Federal Circuit to support the rejection of independent claims 1 and 6 based on the teachings of Jesmanowicz et al. and Darrow et al., under the provisions of 35 U.S.C. §103(a). Claims 2-5 add further steps to the non-obvious method of claim 1, and claims 7-9 and 12-15 add further structure or components to the non-obvious apparatus of independent claim 6, and therefore none of those dependent claims would have been obvious to a person of ordinary skill under the provisions of 35 U.S.C. §103(a) based on the teachings of Jesmanowicz et al. and Darrow et al. for the same reasons discussed above in connection with claims 1 and 6.

REJECTION OF CLAIM 11 UNDER 35 U.S.C. §103(a) BASED ON JESMANOWICZ ET AL., DARROW ET AL. AND APKARIAN ET AL.

Even if the Examiner's statements regarding the teachings of the Apkarian et al. reference are correct, modification of the Jesmanowicz et al. and Darrow et al. combination in view those teachings still would not result in the subject matter of claim 11, which embodies the subject matter of claim 6 therein, for the same reasons discussed above in connection with claim 6. Claim 11, therefore, would not have been obvious to a person of ordinary skill in the field of functional magnetic resonance imaging based on the teachings of Jesmanowicz et al., Darrow et al. and Apkarian et al.

REJECTION OF CLAIM 10 UNDER 35 U.S.C. §103(A) BASED ON JESMANOWICZ ET AL., DARROW ET AL. AND KASSAI ET AL.

Even if the Examiner's statements regarding the teachings of the Kassai et al. reference are correct, modification of the Jesmanowicz et al. and Darrow et al. combination in view those teachings still would not result in the subject matter of claim 10, which embodies the subject matter of claim 6 therein, for the same reasons discussed above in connection with claim 6. Claim 10, therefore, would not have been obvious to a person of ordinary skill in the field of functional magnetic resonance imaging based on the teachings of Jesmanowicz et al., Darrow et al. and Kassai et al.

CONCLUSION:

For the foregoing reasons, Appellant respectfully submits that each of claims 1-15 is patentable over the teachings of the references relied upon by the Examiner. Appellant respectfully submits the Examiner is in error in law and in fact in rejecting those claims as being obvious under 35 U.S.C. §103(a) based on the teachings of the above-discussed references. Reversal of this rejection is therefore proper, and the same is respectfully requested.

This Appeal Brief is accompanied by a check for the requisite fee in the amount of $500.00.

Submitted by,

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CERTIFICATE OF MAILING

I hereby certify this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on February 16, 2006.

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STEVEN H. NOLL

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CLAIMS APPENDIX

1. A method for operating a magnetic resonance apparatus for functional imaging, comprising the steps of:

obtaining a plurality of images, each comprised of picture elements, of a subject in a sequence and alternatingly obtaining the plurality of images within said sequence with stimulation of said subject and without stimulation of said subject; and

storing each image in said plurality of images together with information independent of said picture elements indicating whether that image was registered with or without stimulation of said subject and together with at least one image-related stimulation value that is independent of said picture elements, and together with at least one image-related evaluation correlation value that is independent of said picture elements.

2. A method as claimed in claim 1 comprising selecting said image-related stimulation value from the group consisting of information describing a type of said stimulation, information describing an intensity of said stimulation, information describing a duration of said stimulation, and information describing a point in time of said stimulation.

3. A method as claimed in claim 1 wherein said at least one image-related stimulation value comprises information describing an intensity of said stimulation, said information being selected from the group consisting of a brightness of an optical stimulation source which produces said stimulation, a volume of an acoustic stimulation source which produces said stimulation, a pressure of a pressure-

exerting stimulation source which produces said stimulation, a pulse intensity of an electrical stimulation source which produces said stimulation, and an operating parameter of a stimulation source that produces said stimulation.

4. A method as claimed in claim 1 wherein said image-related evaluation correlation value comprises a point on a time-related correlation curve coinciding with a point in time of the acquisition of the image stored with the image-related evaluation correlation value.

5. A method as claimed in claim 1 comprising the additional step of evaluating said image in combination with said information, and wherein said plurality of images includes at least some images which should be ignored in said evaluation, and wherein said information further comprises an identification of whether the image stored with the information is an image which should be ignored in said evaluation.

6. A magnetic resonance apparatus for functional imaging, comprising:

a magnetic resonance scanner with a sensory stimulator obtaining a plurality of images, each comprised of picture elements, of a subject in a sequence and alternatingly obtaining the plurality of images within said sequence with sensory stimulation of said subject and without sensory stimulation of said subject; and

a memory storing each image in said plurality of images together with information, independent of said picture elements indicating whether that image was registered with or without stimulation of said subject and together with at least one image-related stimulation value, that is

independent of said picture elements and together with at least one image-related evaluation correlation value that is independent of said picture elements.

7. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said image-related stimulation value is a value selected from the group consisting of information describing a type of said stimulation, information describing an intensity of said stimulation, information describing a duration of said stimulation, and information describing a point in time of said stimulation.

8. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said at least one image-related stimulation value comprises information describing an intensity of said sensory stimulation by said sensory stimulator.

9. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said sensory stimulator is an optical stimulation source, and wherein said at least one image-related stimulation value represents a brightness of light emitted by said optical stimulation source.

10. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said sensory stimulator is an acoustic stimulation source, and wherein said at least one image-related stimulation value represents a volume of sound emitted by said acoustic stimulation source.

11. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said sensory stimulator is a pressure-exerting stimulation source, and wherein said at least one image-related stimulation value represents a pressure exerted by said pressure-exerting stimulation source.

12. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said sensory stimulator is an electrical stimulation source, and wherein said at least one image-related stimulation value represents a pulse intensity of an electrical pulse emitted by said electrical stimulation source.

13. A magnetic resonance apparatus for functional imaging as claimed in claim 6 wherein said sensory stimulator has an operating parameter associated therewith, and wherein said at least one image-related stimulation value represents said operating parameter.

14. A magnetic resonance apparatus for functional imaging as claimed in claim m 6 wherein said image-related evaluation correlation value comprises a point on a time-related correlation curve coinciding with a point in time of the acquisition of the image stored with the image-related evaluation correlation value.

15. A magnetic resonance apparatus for functional imaging as claimed in claim 6 further comprising a processor evaluating said image in combination with said information, and wherein said plurality of images includes at least some images which should be ignored in said evaluation, and wherein said information further comprises an identification of whether the image stored with the information is an image which should be ignored by said processor in said evaluation.